
ARCS

**Remedial Planning Activities
at Selected Uncontrolled
Hazardous Substance Disposal
Sites in Region I**



**Environmental Protection Agency
Region I**

ARCS Work Assignment No. 09-1JZZ

H & A Kaufman Realty Co. (Lot #62)
Lincoln, RI
RID987479078
TDD No. 9108-135-ATP

Preliminary Assessment
Final Report

August 1992

**TRC
Companies, Inc.**

**TAMS Consultants, Inc.
PEI Associates, Inc.
Jordan Communications, Inc.**



PRELIMINARY ASSESSMENT
H & A KAUFMAN REALTY CO. (LOT 62)
LINCOLN, RHODE ISLAND

RID987479078

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region I
90 Canal Street
Boston, MA 02203-2211

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EPA Region:	I
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INTRODUCTION

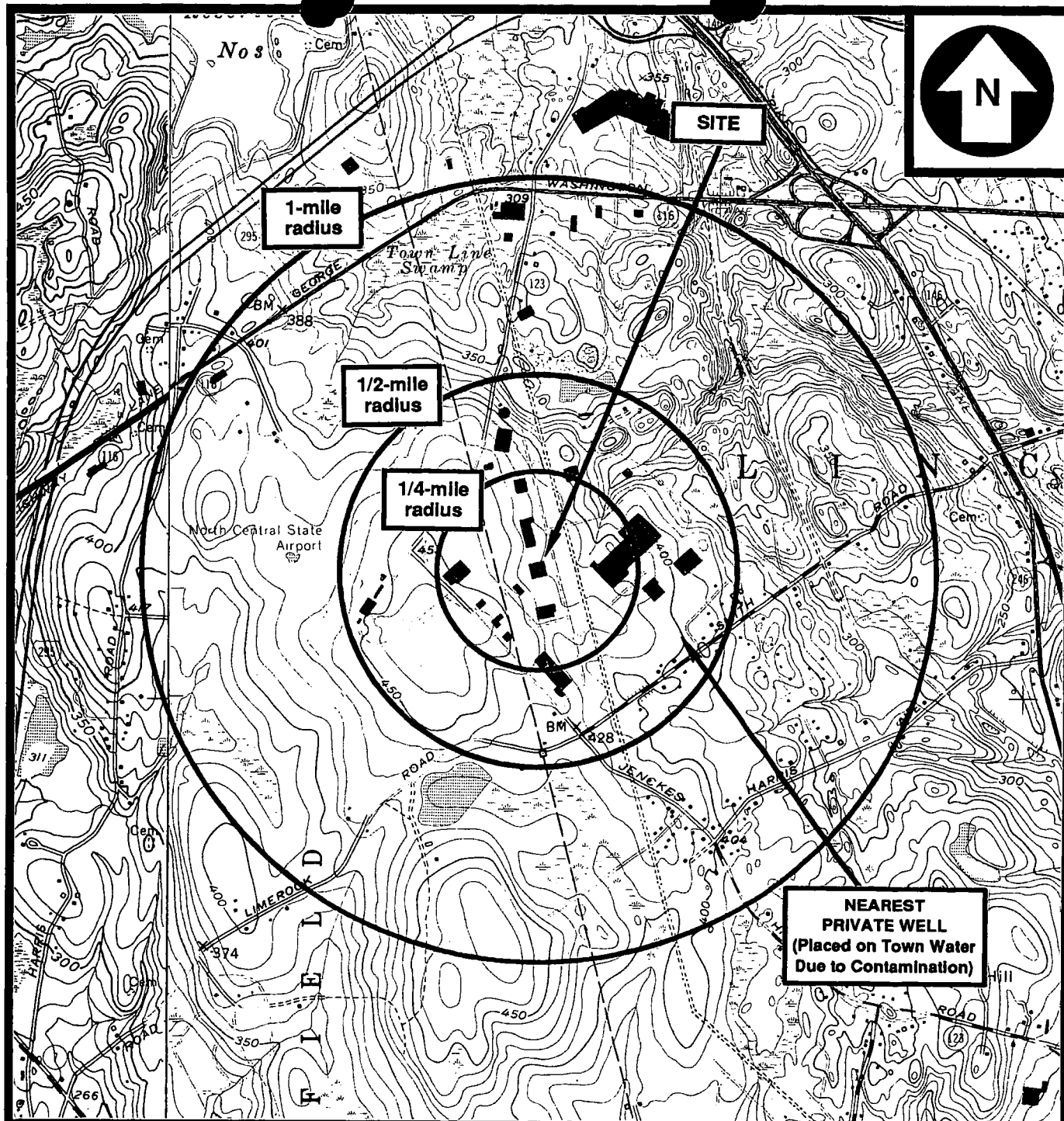
The TRC Companies, Inc. Alternative Remedial Contract Strategy (ARCS/Region I) team was requested by the Region I U.S. Environmental Protection Agency (EPA) Waste Management Division to perform a Preliminary Assessment (PA) of the H & A Kaufman Realty Co. (Lot 62) located in Lincoln, Rhode Island. This PA was completed under Work Assignment No. 09-1JZZ and Technical Direct Document (TDD) No. 9108-135-ATP issued to TRC Companies on August 28, 1991.

Background information used in the generation of this report was obtained through file searches conducted at the Rhode Island Department of Environmental Management (RI DEM) and EPA, telephone interviews with town officials and individuals knowledgeable of the property history and characteristics, and conversations with other Federal, State, and local agencies. Information was also collected during the ARCS/Region I on-site reconnaissance which was conducted on February 11, 1992.

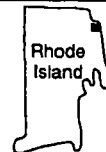
This PA follows the guidelines developed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, commonly referred to as Superfund. However, they do not necessarily fulfill the requirements of other EPA regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other Federal, State, or local regulations. Preliminary Assessments are intended to provide an initial screening of sites to facilitate EPA's assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

SITE DESCRIPTION

The H & A Kaufman Realty Co. (Lot 62) property is located on the west side of Powder Hill Drive in the North Central Industrial Park in Lincoln, Rhode Island (Figure 1, Figure 2 and Table 1). The property is located approximately 1000 feet north of the southern most intersection of Powder Hill Drive with Wellington Road. According to Lincoln Tax



BASE MAP IS A PORTION OF THE FOLLOWING 7.5' U.S.G.S. QUADRANGLE:
PAWTUCKET, RI-MA, 1949, PHOTOREVISED 1970 AND 1975; GEORGIAVILLE, RI, 1954,
PHOTOREVISED 1970 AND 1975



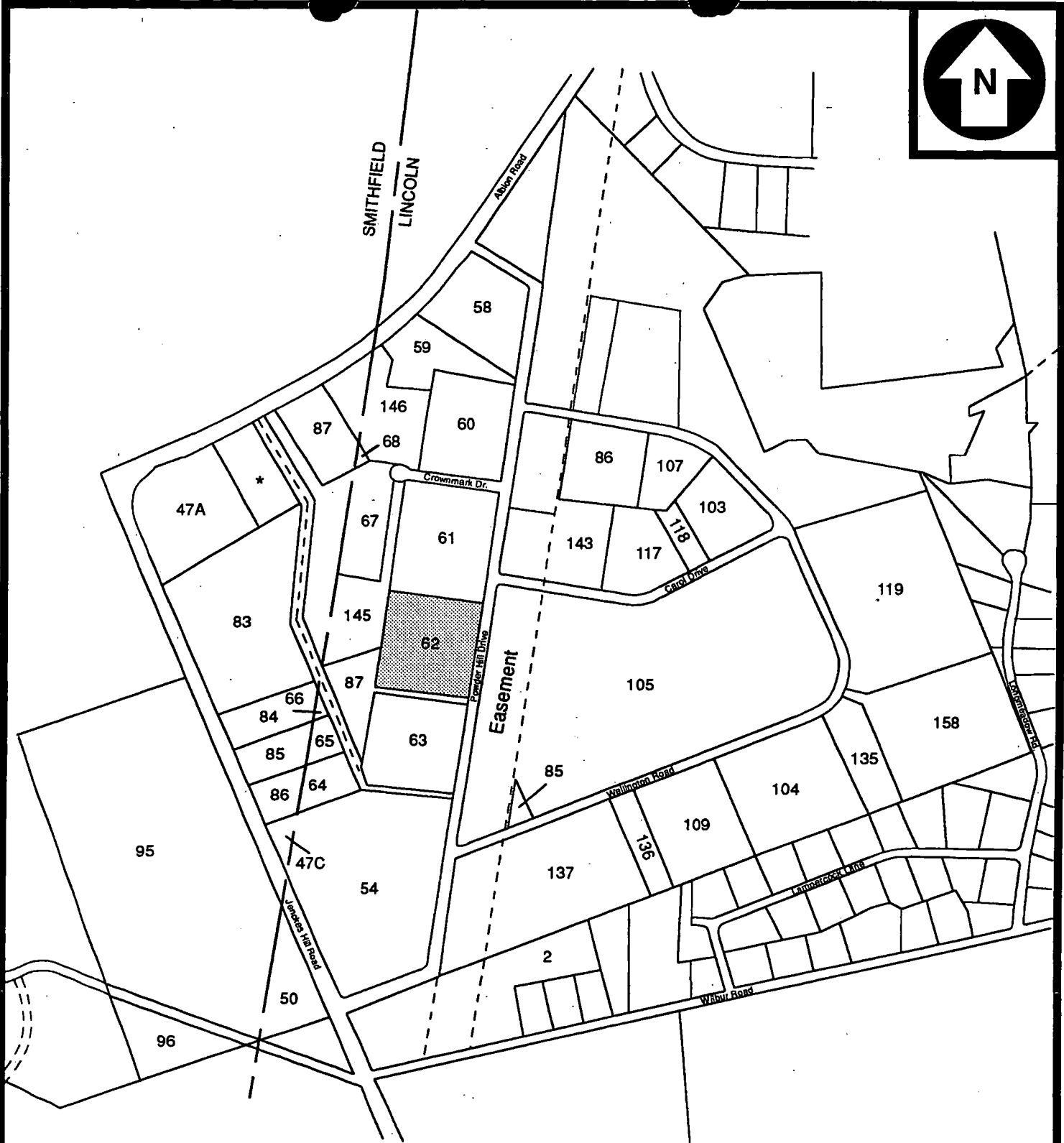
QUADRANGLE LOCATION

LOCATION MAP

H&A KAUFMAN REALTY CO. (LOT 62)
LINCOLN, RHODE ISLAND

TRC Companies, Inc.

Figure 1.



Not to Scale

Adapted From:
Smithfield Town Map; Plat 45
Lincoln Town Map; Plat 28

143 — Lot Number
* — See Table 1

**SITE LOCATION WITHIN THE
NORTH CENTRAL INDUSTRIAL PARK**

**H&A KAUFMAN REALTY CO. (LOT #62)
LINCOLN, RHODE ISLAND**

TRC Companies, Inc.

Figure 2.

TABLE 1. NORTH CENTRAL INDUSTRIAL PARK DIRECTORY

Property Lot Numbers	Occupant/Operator
2, 137	Olin Hunt Specialty Products
47A	RI Air National Guard
*	U.S. Army Reserve Maintenance Facility ¹
50, 95 ² , 96 ²	Speidel Company/Gorham Company
54, 47C ²	Avnet Diecasting (Formerly Lincoln Dimensional Tubing)
58	Stackbin Corp.
59	Red Hed Manufacturing Co./Lawton Manufacturing Co.
60	Dot Packaging Group-TCS, Inc.
61	Second Chase Venture (Formerly Globe Distributing)
62	H & A Kaufman Realty Co.
63	Paramount Press, Inc.
64, 86 ²	National Glass Co.
65, 85 ²	Everett Products, Inc.
66, 84 ²	Coating Systems, Inc.
67	Crownmark Corporation
68, 87 ²	Crossley Machine & Tool Co./Jaco Devices
83 ²	Sandvik Co./Madison Industries
85	Blackstone Valley Electrical Company
86, 107	Premier Thread Company
87	Goodyear Steel Container (formerly Gersham Fabricating Co.)
103, 118	Moeller Manufacturing
104, 135	International Data Sciences, Inc.
105	Carol Cable Co.
109, 136	Technical Materials
117	Vennerbeck Stern-Leach
119	Vistawall Architecture Products (Formerly Hedison Manufacturing)
143	Tru-Kay Manufacturing, Inc.
145	Engineered Wall Systems
146	Flink Ink Corp.
158	Lot 158

¹No Lot Number was available for this property

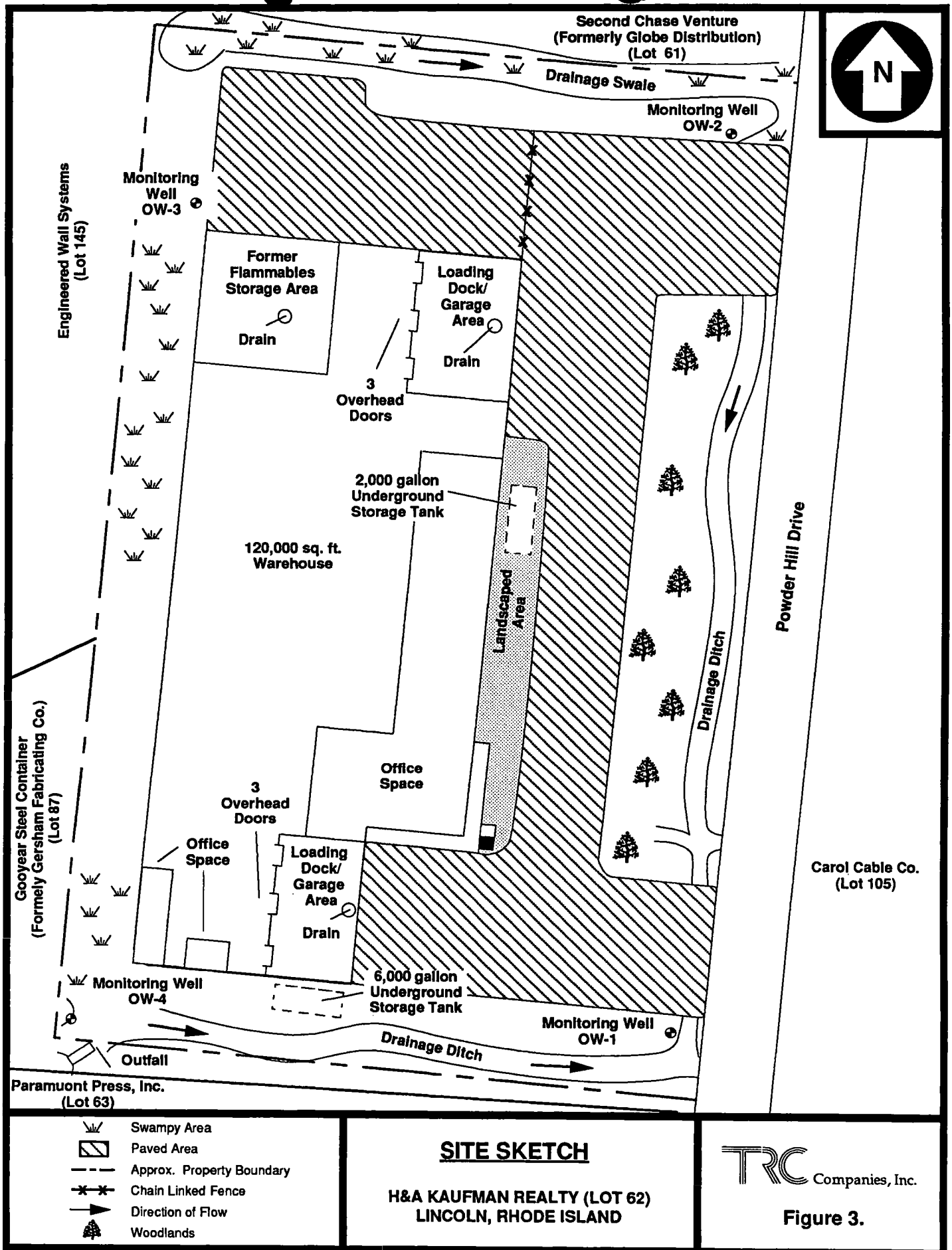
²Lot Number from the Smithfield Town Map. All remaining lot numbers are from the Lincoln Town Map.

Assessor's records, the property is identified as Lot 62 of Plat 28. The geographic coordinates of the point of access to this property are 41°55'16.5" north latitude and 71°28'53.9" west longitude. The location was determined from the interpretation of the U.S. Geological Survey Topographical Map for the Pawtucket Quadrangle (USGS, 1975a).

The H & A Kaufman Realty Co. (Lot 62) facility is currently inactive. This facility was utilized as a temporary storage and distribution center for consumer goods from its inception in 1968, until September 1990, when its occupant, Globe Distributing, Inc., vacated the building (TRCC, 1992a). There have been no other occupants at this facility throughout its history. Prior to construction of the building in 1968, the property was undeveloped woodland (Pare, 1991a).

The H & A Kaufman Realty Co. (Lot 62) property consists of a rectangular lot which covers an area of approximately 5.0 acres (Lincoln Tax Assessor's Records, 1992). There are no barriers which would restrict access to the property (TRCC, 1992a). On this property is situated a rectangular, two-story building with no basement which is approximately 120,000 square feet in area (Figure 3). Approximately 100,000 square feet of this building is devoted to warehouse space, while the remaining 20,000 square feet is utilized as office space (TRCC, 1992a). Floors throughout the building are concrete. Three floor drains were observed during the site reconnaissance (see Figure 3). One of the floor drains was located in the former flammable goods storage area while the others were located in each of the two loading dock/garage areas. At the time of the site reconnaissance, no goods or merchandise were stored in the building and, in general, the building appeared clean and well maintained (TRCC, 1992a).

Four potential source areas were identified during the site reconnaissance of the H & A Kaufman Realty Co. property. Two of these potential source areas are the underground storage tanks that are located on the property. The third potential source area is the former flammables storage area, situated in the northwest corner of the building located on this property. The fourth potential source area is a drainage ditch that runs along the southern



portion of the H & A Kaufman Realty Co. property. The following descriptions provide detailed information on each of the potential source areas that were identified during the site reconnaissance performed by TRCC personnel on February 11, 1992.

There is a underground storage tank located on the southern boundary of the H & A Kaufman Realty Co. property (see Figure 3). Information on the property indicates that this tank is currently used for storage of No. 2 fuel oil (Michaelson & Michaelson, 1990). However, the historical use of this tank is unknown. This tank has a capacity of 6,000 gallons and was installed approximately 14 years ago (Michaelson & Michaelson, 1990). Information on this tank suggests that the integrity of this tank has not been tested (Michaelson & Michaelson, 1990).

Another underground storage tank is located adjacent to the eastern side of the building (see Figure 3). Records indicate that this tank is presently used for storage of No. 2 fuel oil (Michaelson & Michaelson, 1990). However, the historical use of this tank is unknown. This tank was installed approximately 22 years ago and has a capacity of 2,000 gallons (Michaelson & Michaelson, 1990). Records indicate that this tank has not been tested for integrity (Michaelson & Michaelson, 1990).

There is an area located in the northwestern corner of the H & A Kaufman Realty Co. building (see Figure 3) which was used by the former occupant (Globe Distributing, Inc.) to store flammable goods (TRCC, 1992a). A specific list of the items and the quantities that were stored in this section of the building is not available. There is a floor drain located in this area, the terminus of which is unknown. Using an HNu with a 10.2 eV lamp, organic vapors were detected in the drain during TRCC's site reconnaissance at a concentration of 20 parts per million (ppm) (TRCC, 1992a). There were no goods or items stored in this area during the site reconnaissance, and no staining of the concrete floor was observed. No other elevated organic vapor concentrations were recorded in this or any other area of the building or property during the site reconnaissance (TRCC, 1992a).

There is drainage ditch located along the southern and eastern boundaries of the H & A Kaufman Realty Co. property. (TRCC, 1992a). Flow in this drainage ditch is to the east. There is an outfall at the southwestern corner of the H & A Kaufman Realty Co. property which appears to originate from one of the properties located to the west of the H & A Kaufman Realty Co. property. During the site reconnaissance, this outfall was discharging water to the drainage ditch at a flow rate that was estimated to be less than 1 cubic foot per second (cfs) (TRCC, 1992a). It was observed, however, that the water being discharged into the drainage ditch was warm (TRCC, 1992a). This observation was based on the presence of green vegetation in the drainage ditch and also the lack of ice in the area surrounding the discharge. The below freezing temperatures that had existed for several days previous to the date of the site reconnaissance had frozen the water in the other drainage ditches on the property (TRCC, 1992a). The vegetation present in the other drainage ditches did not have the green appearance that the vegetation in the drainage ditch just below the outfall had. It is noted that no elevated organic vapors readings were detected during the site reconnaissance in the drainage ditch in the vicinity of the outfall (TRCC, 1992a).

The H & A Kaufman Realty Co. property is rather flat, gently sloping to the east toward Powder Hill Drive. Based on the U.S. Geological Survey Map for the area, most of the property appears to be between 420 and 430 feet above mean sea level (USGS, 1975a). Drainage ditches located along and parallel to the northern and southern boundaries of the property receive runoff from the rear and the sides of the building, and from properties located north, south, and west of the H & A Kaufman Realty Co. property. Water that collects in these ditches flows into a drainage ditch that runs parallel to Powder Hill Drive. Water in this drainage ditch then flows through a culvert under Powder Hill Drive to property located on the east side of Powder Hill Drive, which is owned by the Carol Cable Co.

The H & A Kaufman Realty Co. (Lot 62) property is bordered to the east by Powder Hill Drive; to the south by Paramount Press, Inc. (Lot 63), to the north by Second Chase Venture (Lot 61) and to the west by Engineered Wall Systems (Lot 145) and Goodyear Steel

Container (Lot 87), a prefabricator of exterior wall panels and a metals fabricator, respectively.

The H & A Kaufman Realty Co. (Lot 62) property is situated within the North Central Industrial Park, which covers an area of approximately 248 acres, of which approximately 21 acres are located in Smithfield, Rhode Island (NUS, 1991). The North Central Industrial Park is comprised of 29 individual properties. The industrial park is bordered to the west by the North Central Airport and to the north by the New England Way Industrial Park. Residential neighborhoods are located along the eastern and southern boundaries of the industrial park. The nearest residences are located between 0.25 and 0.5 miles to the southeast of the property and have private wells that have been shut down due to contamination (TRCC, 1992b; RI DEM, 1982).

SITE ACTIVITY/HISTORY

Records at the Town of Lincoln Tax Assessor's Office indicate that, prior to 1962, the land on which the North Central Industrial Park is located was owned by the State of Rhode Island and was undeveloped (TRCC, 1992a). In 1962, this land was purchased by the Second Pawtucket Area Industrial Development Foundation for the development of the North Central Industrial Park. In 1968, the Second Pawtucket Area Industrial Development Foundation sold the H & A Kaufman Realty Co. (lot 62) site to Arnold N. Kaufman and Howard S. Kaufman, who owned the property until 1976. In 1976, the property was purchased by the Rachel Realty Co. The Rachel Realty Co. sold the property in 1986 to the H & A Kaufman Realty Co., which is owned by Arnold N. Kaufman and Howard S. Kaufman. Since 1986, the H & A Kaufman Realty Co. has remained the owner.

The building that is located on the property was constructed in 1968, and expanded in 1971 to its present size (Pare, 1991a). Prior to 1968, the lot was undeveloped woodland. From its inception until September 1990, the facility was occupied by Globe Distribution, Inc., which

utilized the building as a warehouse and distribution center (TRCC, 1992a). In September 1990, Globe Distribution, Inc. moved out of the facility. Since September 1990, the facility has remained unoccupied.

Items that were stored at the facility by Globe Distribution, Inc. included automotive parts, hardware, and lawn and garden supplies (Pare, 1991a). Past studies indicate that all materials were pre-packaged or containerized when they arrived at the facility, and remained in the original packaging during storage and through the distribution process (Pare, 1991a).

A review of RI DEM and US EPA files found no records documenting that any hazardous wastes were generated at the facility or that any releases of hazardous substances had occurred. During TRCC's site reconnaissance performed on February 11, 1992, no areas were identified as having been used for the storage of hazardous waste. However, TRCC noted that one area of the warehouse had formerly been used for storage of flammable goods (see Figure 3). A list of the materials and/or the quantities that were stored in this area while the facility was in operation is not available (TRCC, 1992a).

Reviews of RI DEM and US EPA files did not indicate that, with the exception of the Site Discovery filed by NUS Corporation for EPA in July 1991, there has been any regulatory activity associated with the H & A Kaufman Realty Co. (Lot 62) property. No records were found identifying the former occupant of the facility, Globe Distribution, Inc., as a generator of hazardous waste. In addition, no permits or violations were issued by any agencies to Globe Distribution, Inc. during their occupancy of the facility. It was also noted that the files did not indicate that any inspections had been conducted of the facility while it was being utilized by Globe Distribution, Inc. as a warehouse and distribution center.

However, regulatory activity has been associated with the North Central Industrial Park and several of its other occupants. A historical summary is provided below.

- In 1981 and 1982, an investigation of ground water contamination in the area of the North Central Industrial Park was conducted by the RI DEM (RI DEM, 1982). This investigation was conducted after organic chemical contaminants were found in 74 private wells during an Emergency Well Testing Program initiated in 1980 by the Rhode Island Department of Health. In 1981, through efforts by the Town of Lincoln, public water lines were installed throughout the affected area, making public water available to all of the residences having contaminated wells (RI DEM, 1982).
- In 1989, the H & A Kaufman Realty Co. retained the Pare Engineering Corp. to conduct an investigation of the property (Pare, 1991a). As part of this investigation, in November 1989 four monitoring wells were installed on the property by the Guild Drilling Co., Inc. of East Providence, Rhode Island (Michaelson and Michaelson, 1990). In December 1989, ground water samples (OW-1, OW-2, OW-3, and OW-4) were collected from each of the monitoring wells. Two water samples (SW-1 and SW-2) were also collected during this sampling event from the drainage ditches that are located on the property. The specific locations from which these surface water samples were collected are unknown. All samples collected during this sampling event were analyzed for volatile organic compounds (VOCs) and inorganic compounds. The results of these analyses indicate the presence of low levels of 1,1-dichloroethane and 1,1,1-trichloroethane in both ground water and surface water at the H & A Kaufman Realty Co. property (Michaelson and Michaelson, 1990). Tables 2 and 3 present summaries of the results from this sampling event. Boring logs and analytical results from the study are included in Appendix A.

ENVIRONMENTAL SETTING

The H & A Kaufman Realty Co. (Lot 62) property is situated in the North Central Industrial Park, which is located in a rural area. The soil at the property is classified as UD: Udorthents - Urban Land Complex (USDA, 1981). The surficial geology has been mapped as Quaternary Ground Moraine and is described as a "till of at least two types: one is loose, sandy, and generally light gray with a thin oxidation zone; and the other is compact, slightly indurated, and brownish" (USGS, 1949a). The bedrock geology is mapped as Esmond Granite and is described as a "light-gray, pink, and flesh-colored medium-to coarse-grained slightly gneissic granite containing microperthite (30 to 45 percent), albite (20 to 30 percent), quartz (15 to 45 percent), and biotite (1 to 7 percent)" (USGS, 1949b). Maps and well records of the area indicate that bedrock depths may range from 5 to 25 feet (RI DEM, 1982).

TABLE 2. SUMMARY OF INORGANIC RESULTS FOR GROUND WATER AND SURFACE WATER SAMPLES COLLECTED IN DECEMBER 1989 AT THE H & A KAUFMAN REALTY CO. (LOT 62) SITE

Analyte	Ground Water				Surface Water		Detection Limits (mg/l)
	OW-1 mg/L	OW-2 mg/L	OW-3 mg/L	OW-4 mg/L	SW-1 mg/L	SW-2 mg/L	
Arsenic	ND	ND	ND	ND	ND	ND	0.2
Barium	0.413	0.028	1.26	0.631	0.122	0.023	0.005
Cadmium	ND	ND	ND	ND	ND	ND	0.005
Chromium	ND	ND	ND	ND	ND	ND	0.05
Mercury	ND	ND	ND	ND	ND	ND	0.001
Selenium	ND	ND	ND	ND	ND	ND	0.2
Lead	ND	ND	ND	ND	ND	ND	0.05
Silver	ND	ND	ND	ND	ND	ND	0.05

Source: Letter to Mr. Timothy O'Connor, Rhode Island Department of Environmental Management from Michaelson & Michaelson, Attorneys at Law, October 24, 1990.

Note: Locations of monitoring wells are shown on Figure 3. Specific locations at which surface water samples were collected are unknown.

µg/L = micrograms per liter

ND = Not Detected

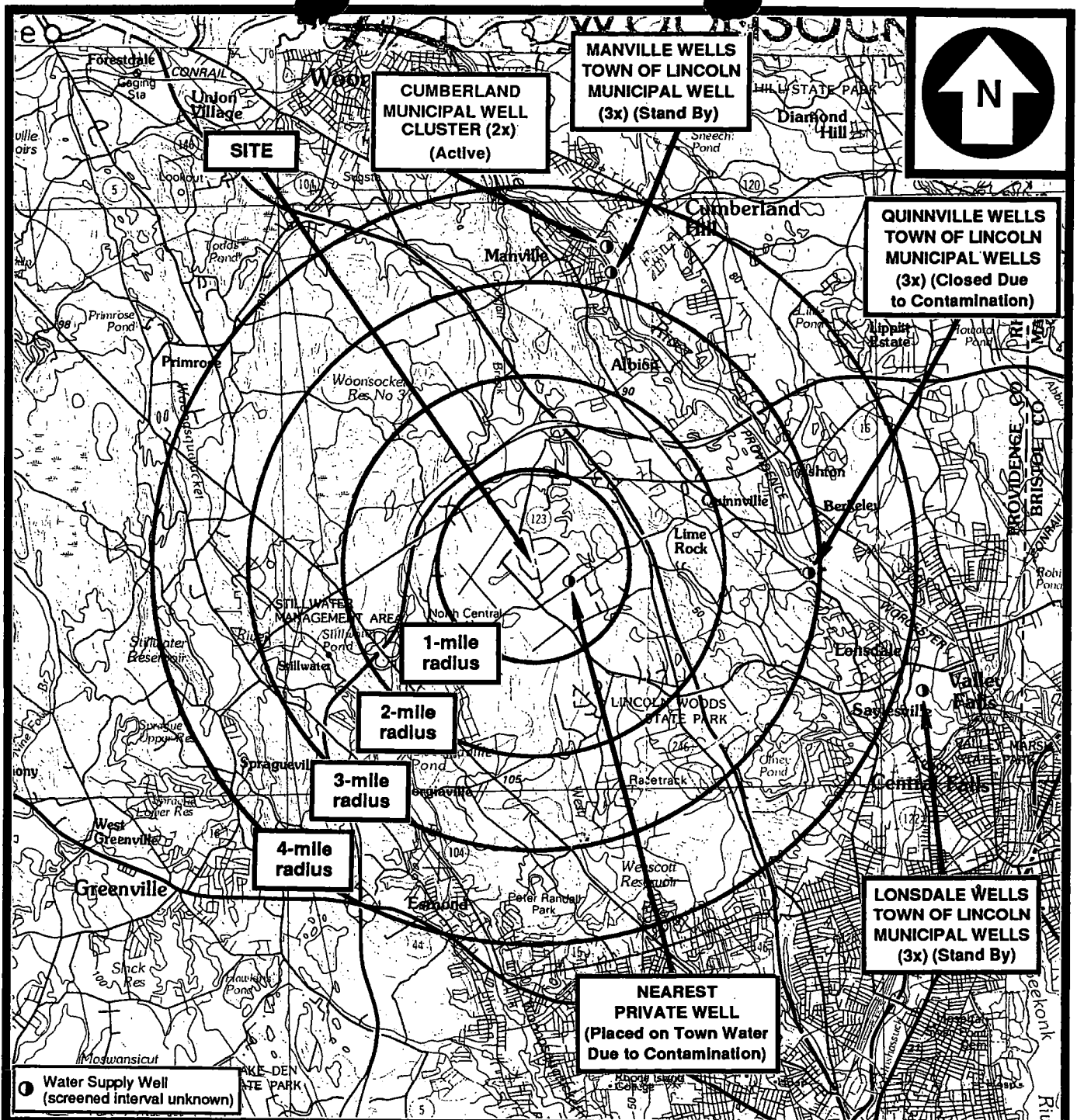
TABLE 3. SUMMARY OF VOLATILE ORGANIC RESULTS FOR GROUND WATER AND SURFACE WATER SAMPLES COLLECTED IN DECEMBER 1989 AT THE H & A KAUFMAN REALTY CO. (LOT 62) SITE

Compound	Ground Water				Surface Water		Detection Limits (µg/L)
	OW-1 (µg/L)	OW-2 (µg/L)	OW-3 (µg/L)	OW-4 (µg/L)	SW-1 (µg/L)	SW-2 (µg/L)	
Benzene	ND	ND	ND	ND	ND	ND	0.50
Bromodichloromethane	ND	ND	ND	ND	ND	ND	0.50
Bromoform	ND	ND	ND	ND	ND	ND	0.50
Bromomethane	ND	ND	ND	ND	ND	ND	1.0
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	0.50
Chlorobenzene	ND	ND	ND	ND	ND	ND	0.50
Chloroethane	ND	ND	ND	ND	ND	ND	1.0
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND	1.0
Chloroform	ND	ND	ND	ND	ND	ND	0.50
Chloromethane	ND	ND	ND	ND	ND	ND	1.0
Dibromochloromethane	ND	ND	ND	ND	ND	ND	0.50
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50
1,1-Dichloroethane	7.0	3.3	ND	6.0	30.0	ND	0.50
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	0.50
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50
Trans-1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	0.50
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	0.50
cis-1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	0.50
Trans-1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	0.50
Ethylbenzene	ND	ND	ND	ND	ND	ND	0.50
Methylene Chloride	ND	ND	ND	ND	ND	ND	0.50
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	0.50
Tetrachloroethene	ND	ND	ND	ND	ND	ND	0.50

In 1989, four soil borings were advanced on the H & A Kaufman Realty Co. (Lot 62) property to depths ranging from 16 to 25 feet below the ground surface (Michaelson and Michaelson, 1990). Refusal was encountered in two of the borings at depths of 16 and 16.5 feet (Michaelson and Michaelson, 1990). The other two borings were advanced to depths of 20 and 25 feet (Michaelson and Michaelson, 1990). Monitoring wells were subsequently installed at these four boring locations.

Ground water beneath the site is classified as GB (Balogh, 1992a). Ground water in this classification is defined as that which is located within highly urbanized areas of industrial activity where public water supply is available and where the ground water may or may not be suitable for direct human consumption due to waste discharges, spills or leaks of chemicals, land impacts, etc. (Balogh, 1992a). During the 1982 study conducted by the RI DEM, ground water flow through the unconsolidated strata in the North Central Industrial Park was determined to be in an east to east-southeast direction (RI DEM, 1982). The depth to ground water at the site averages less than 2 feet (Pare, 1991a).

Ground water use within a four-mile radius of the H & A Kaufman Realty Co. property consists of one public well cluster in Cumberland and a number of private well users dispersed throughout Lincoln (population 18,045), Smithfield (population 19,163), North Smithfield (population 10,497), Cumberland (population 29,083), and North Providence (population 32,090) (USDC, 1991). Figure 4 identifies the location of the Cumberland well cluster, which is approximately 3.5 miles north to northeast of the H & A Kaufman Realty Co. property. Cumberland's water supply system serves approximately 27,006 residents (approximately 93 percent of the total population) (Deline, 1992e; USDC, 1991; RIDA, 1988). This public well cluster serves approximately 6,320 people (approximately 23.4 percent of the total number of residents served by the Cumberland public water supply system) (Deline, 1992e; USDC, 1991; RIDA, 1988). Cumberland receives the remainder of its water supply from two other well clusters which are located greater than four miles from the H & A Kaufman Realty Co. property (Deline, 1992e; USGS, 1975a; USGS, 1975d).



FOUR-MILE RADIUS MAP

**H&A KAUFMAN REALTY CO. (LOT 62)
LINCOLN, RHODE ISLAND**

TRC Companies, Inc.

Figure 4.

The nearest private well to the H & A Kaufman Realty Co. property is believed to be located on Lampercock Lane approximately 1,900 feet southeast of the property (see Figure 1). Use of this well was discontinued in 1981 after a sampling event conducted in December 1980 indicated the presence of organic contaminants. The location of the closest private well currently in use was not determined.

The estimated distribution of the population utilizing private wells for their water supply within a four-mile radius of the H & A Kaufman Realty Co. property is summarized in Table 4. The number of private well users within a 0.5 mile radius of H & A Kaufman Realty Co. was determined based on the RI DEM Report (RI DEM, 1982; Arnold, 1992a; Arnold, 1992b). The rationale used in determining the distribution for the remaining distance rings is presented in the following discussion.

The Town of Lincoln's public water is available to all areas of the town and is capable of serving all residents who desire to be connected to the public water supply (Lincoln, 1991). However, private wells remain the source of water for approximately 13 percent of the population (Lincoln, 1991; RIDA, 1988). The public water system extends to all areas of Lincoln, and those areas served by the public system and those served by private wells are not clearly delineated (Lincoln, 1991). Therefore, for the purpose of determining the population utilizing private wells as their water supply, it is assumed that residences with private wells are evenly distributed throughout the Town of Lincoln.

Residences located in the southeastern areas of North Smithfield along the borders with Smithfield and Lincoln are generally served by private wells (Deline, 1992d). Therefore, it is assumed that all residences located in this area utilizes private wells as their water supply, even though overall 67 percent of North Smithfield residents are served by private wells (RIDA, 1988).

In Smithfield, approximately 24 percent of the population is served by private wells (RIDA, 1988). Similar to Lincoln, there is no clear definition between those areas served by public

TABLE 4. ESTIMATED PRIVATE AND PUBLIC WELL USE WITHIN A FOUR-MILE RADIUS OF THE H & A KAUFMAN REALTY CO. (LOT 62)

Distance Ring (miles)	Town	Private Well Users	Public Well Users	Total
0.00-0.25	Lincoln	21		21
	Smithfield	0		
0.25-0.50	Lincoln	124		126
	Smithfield	2		
0.50-1.00	Lincoln	43		53
	Smithfield	10		
1.00-2.00	Lincoln	132		233
	Smithfield	82		
	N. Smithfield	19		
2.00-3.00	Lincoln	236		986
	Smithfield	347		
	N. Smithfield	343		
	Cumberland	60		
3.00-4.00	Lincoln	497		7,957
	Smithfield	485		
	N. Providence	0		
	N. Smithfield	397		
	Cumberland	258	6,320	
TOTAL				9,376

sources:

Balogh, 1992b

Deline, 1992b

RIDA, 1988

USDC, 1991

water and those that are not and it is therefore assumed that the distribution of residences with private wells is uniform throughout the Town of Smithfield (Balogh, 1992b; Balogh, 1992c; Balogh, 1992d; Balogh, 1992e; RIDA, 1988).

Approximately 7 percent of the population of Cumberland and 0 percent of the population of North Providence also use private wells for their water supply (RIDA, 1988). Again, in the Town of Cumberland, those areas predominantly served by private wells are not easily distinguished from those that are served by the public water systems, and therefore, it is assumed that the distribution of residences with private wells is uniform throughout the town (Balogh, 1992b; Balogh, 1992e; Deline, 1992b).

The source of the public water for the towns of Lincoln, Smithfield, and North Providence is the Scituate Reservoir, which does not lie along the 15-mile surface water pathway from the probable point of entry (PPE) to surface water for runoff from the H & A Kaufman Realty Co. property (Balogh, 1992c; Balogh, 1992d; Balogh, 1992e, Balogh, 1992f; Deline, 1992c; TRCC, 1992a; USGS, 1975a; and USGS, 1975c).

The total number of people served by private wells within a four-mile radius of the H & A Kaufman Realty Co. property is estimated to be 3,056 (Deline, 1992b; RIDA, 1988). The distribution of residents utilizing private wells is summarized in Table 3. The total number of residents served by ground water sources drawn within a four-mile radius of the H & A Kaufman Realty Co. property is approximately 9,376 (Deline, 1992b; RIDA, 1988).

The Town of Lincoln has six municipal wells located within four miles of the site. Three of these wells (Quinville Wells) have been closed due to contamination from an unidentified source and three (Manville Wells) have been placed on standby (TRCC, 1992b).

The North Central Industrial Park lies within the Narragansett Bay Drainage Basin (USDA, 1981). Surface water runoff from the H & A Kaufman Realty Co. property collects in a drainage ditch located along Powder Hill Drive. Water in this drainage ditch flows through a culvert under Powder Hill Drive onto property located on the eastern side of Powder Hill

Drive which is owned by the Carol Cable Co. Surface water apparently drains into a sewer drain located near the intersection of Carol Drive and Wellington Road. The sewer drain is part of the municipal system that services the North Central Industrial Park and appears to drain into an unnamed stream that flows 0.9 mile northeast from the site to a swampy area that subsequently feeds the Moshassuck River (Deline, 1992c; RI DEM, 1982; USGS, 1975a). Surface water flows along the Moshassuck River to where it enters Butterfly Pond, approximately 3.2 miles from the site. From Butterfly Pond, water flows to Barney Pond, approximately 4.1 miles along the pathway from the site. From Barney Pond, surface water flows southeast to the adjacent Bleachery Pond (USGS, 1975a). From Bleachery Pond, surface water continues along the Moshassuck River in a southerly direction through the cities of Pawtucket and Providence and ultimately drains into the Providence Harbor and Providence River, approximately 10.6 miles along the pathway from the site (USGS, 1970a). The terminus of the 15 mile surface water pathway is Sabin Point (Deline, 1992d). The Moshassuck River contains several species of fresh water fish including trout, that may be harvested by sport fishermen, and is considered an active fishery (Balogh, 1992h). There are no surface water supply intakes located along the 15-mile downstream pathway from the H & A Kaufman Realty Co. property (Balogh, 1992c; Balogh, 1992d; Balogh, 1992e; Balogh, 1992f; Deline, 1992c; USGS, 1975a; USGS, 1975c; TRCC, 1992a).

The area surrounding the North Central Industrial Park is not a critical habitat for federally designated endangered or threatened species, nor are federally endangered species believed to presently live or are predicted to live in the area. It is, however, an area inhabited by state endangered or threatened species and contains Natural Areas (Lime Rock Preserve) and wetlands (Balogh, 1992h). Additionally, the Lincoln Woods State Park is within four miles of the H & A Kaufman Realty Co. property (Figure 3; USGS, 1975a). No information was available about designated area of wellhead protection located within four miles of the H & A Kaufman Realty Co. property (Balogh, 1992a). Road signs posted along route 116, however, indicate that the area around the North Central Industrial Park is a watershed area.

The H & A Kaufman Realty Co. (Lot 62) property is currently inactive and there are no workers onsite. The only facility located within 200 feet of the property is Engineered Wall

Systems, which is located on the lot (Lot 145) west and adjacent to the H & A Kaufman Realty Co. property (TRCC, 1992a). The number of workers currently employed at the facility owned by Engineered Wall Systems is 22 (RIDECOD, 1988). There are no other regularly occupied buildings or facilities located within 200 feet. The closest residence to the H & A Kaufman Realty Co. property is located approximately 1,800 feet to the south. The population residing within four miles of the site is summarized in Table 5 (Deline, 1992b). The total residential population within a four-mile radius of the H & A Kaufman Realty Co. facility is an estimated 16,921 (Deline, 1992b).

According to the Flood Insurance Rate Map for the Town of Lincoln, Rhode Island, the H & A Kaufman Realty Co. (Lot 62) property is located in a flood zone area classified as Zone C (FEMA, 1982a). Areas classified as Zone C are defined as those of minimal flooding which are above the limits of the 100-year to 500-year flood plain (FEMA, 1982b).

SUMMARY

The H & A Kaufman Realty Co. (Lot 62) facility was occupied by Globe Distributing, Inc. from 1968, the year the building was constructed, until September of 1990, when Globe Distributing, Inc. moved. The building has been vacant since that time. Prior to 1968, the property was undeveloped woodland.

Globe Distributing, Inc. utilized this facility as a warehouse and distribution center for automotive parts, hardware, and lawn and garden supplies. All merchandise stored at the facility was manufactured offsite. No manufacturing or processing occurred at the facility. During reviews of US EPA and RI DEM files, no information was found indicating that any hazardous waste was generated at the facility, nor were any records found regarding any violations or permits issued to Globe Distributing, Inc., during their occupancy of the H & A Kaufman Co. facility.

A study of the H & A Kaufman Co. property, conducted in 1989 by the Pare Engineering

TABLE 5. ESTIMATED RESIDENTIAL POPULATION WITHIN A FOUR-MILE RADIUS OF THE H & A KAUFMAN REALTY CO. (LOT 62)

Distance Ring (miles)	Town	Population per town	Total Population
0.00-0.25	Lincoln	21	21
	Smithfield	0	
0.25-0.50	Lincoln	124	132
	Smithfield	8	
0.50-1.00	Lincoln	43	81
	Smithfield	38	
1.00-2.00	Lincoln	1,011	1,372
	Smithfield	342	
	N. Smithfield	19	
2.00-3.00	Lincoln	1,811	4,449
	Smithfield	1,445	
	N. Smithfield	343	
	Cumberland	850	
3.00-4.00	Lincoln	3,820	10,866
	Smithfield	2,018	
	N. Providence	957	
	N. Smithfield	397	
	Cumberland	3,674	
TOTAL			16,921

sources:
 Balogh, 1992b
 Deline, 1992b

Corp. of Lincoln, RI, indicated the presence of low levels of 1,1-dichloroethane and 1,1,1-trichloroethane in both ground water and surface water at the property (Pare, 1991a).

During the site reconnaissance (performed February 11, 1992), elevated levels (20 ppm) of organic vapors were detected with an HNu in a floor drain located in the area of the warehouse that was formerly used for storage of flammable goods (TRCC, 1992a). No other elevated levels of organic vapors were detected in the building or on the property, and no other evidence of a release was observed during the site reconnaissance (TRCC, 1992a).

The facility is located in the North Central Industrial Park, Lincoln, Rhode Island. The area surrounding the industrial park is rural and is used for a combination of industrial, commercial, and residential purposes. Many private wells were discontinued as a result of ground water contamination, however supplied water is available. Most of the population within 4 miles of the facility obtains drinking water from public sources located greater than 4 miles from the facility.

Based on the 1989 investigation by the Pare Engineering Corp. that revealed the presence of 1,1-dichloroethane and 1,1,1-trichloroethane in both ground water and surface water on the property, the lack of information on the materials warehoused in the area formerly used for the storage of flammables, and the detection of organic vapors in the floor drain located in the former flammables storage area, TRCC recommends continued investigative work under CERCLA at the H & A Kaufman Realty Co. (Lot 62) property.

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